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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,181	10/11/2005	Werner Maentele	30408/J50005	8472
4743 7590 03/17/2008 MARSHALL, GERSTEIN & BORUN LLP 233 S. WACKER DRIVE, SUITE 6300 SEARS TOWER CHICAGO, IL 60606			EXAMINER LAUCHMAN, LAYLA G	
			ART UNIT 2877	PAPER NUMBER
			MAIL DATE 03/17/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/537,181

**Applicant(s)**

MAENTELE ET AL.

**Examiner**

L. G. Lauchman

**Art Unit**

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 and 17-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 17-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-85/86)  
Paper No(s)/Mail Date 6/01/2005
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Inventor's Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Specification***

The preliminary amendment to the specification and abstract, filed on 6/05/2001, has been entered.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-14, 17-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims 1 and 2 are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

Regarding claims 1, 2, 8, 27 the phrase "can be" renders the claim indefinite because it is unclear whether the limitation following the phrase are part of the claimed invention or being considered optional.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7, 11, 12, are rejected under 35 U.S.C. 102(b) as being anticipated by Soller et al (US 6,006,119) (“Soller”).

Soller discloses a transmission spectrometer comprising (figs. 12a-c) a sensor 790 to which, through at least one optical waveguide 750 for emitted radiation, the radiation of at least one radiation source 704 can be introduced, in order to direct it on and/or in an object 705 to be investigated, and with an optical waveguide 450 for detected radiation spaced from the sensor, through which radiation, which was scattered by, transmitted by and/or emitted by the object to be investigated can be introduced to a radiation detector 710 connected to an evaluation unit 670 (fig.11), the transmission spectrometer further comprising a plurality of radiation sources 704, each having an adjustable radiation intensity (col. 17, lines 52-65), and which have an emission spectrum which is broadband either per radiation source or for all radiation sources together, and each of which is coupled directly to an optical waveguide for emitted radiation, the radiation detector detecting the entire spectrum of the radiation which is entered in the optical waveguide for detected radiation by diffuse and/or directional reflection, transmission, emission and/or fluorescence (col. 17, lines 22-65), and in the evaluation unit, as a function of at least one program which can be selected through an operating unit for the calculation of at least one parameter (col. 2, lines 32-45, at least the intensity of one given wavelength can be processed, and the evaluation unit is in working connection with the radiation sources in such a way that, depending on the selected program, the intensity of the radiation emitted from each radiation source can be adjusted individually(col. 14, lines 10-10), and wavelengths with corresponding intensities, which arrive from the radiation detector to the evaluation unit, can be selected.

As to Claim 2, Soller (fig. 11 a-c, 12 a-c) discloses a reflection spectrometer comprising a sensor 790 to which, through at least one optical waveguide 750 for emitted radiation, the radiation of at least one radiation source can be introduced, in order to direct it on and/or in an object 705 to be investigated, and through which, with at least one optical waveguide for detected radiation, radiation, which was scattered by, transmitted by and/or emitted by the object to be investigated, can be introduced to a radiation detector 710 connected to an evaluation unit 670, whereby at a free end of the sensor, a radiation coupling-in end of the optical waveguide for detected radiation is surrounded by radiation coupling-out ends of the optical waveguides for emitted radiation, so that in the measuring range on and/or in the object to be investigated, there is at least a partial overlap of the aperture of the optical waveguide for detected radiation with the aperture of the optical waveguide for emitted radiation, the radiation spectrometer further comprising a plurality of radiation sources 704, each having an adjustable radiation intensity (col. 17, lines 52-65), and which have an emission spectrum which is broadband either per radiation source or for all radiation sources together, and each of which is coupled directly to an optical waveguide for emitted radiation, the radiation detector detecting the entire spectrum of the radiation which is entered in the optical waveguide for detected radiation by diffuse and/or directional reflection and/or fluorescence, and in the evaluation unit, as a function of at least one program which can be selected through an operating unit for the calculation of at least one parameter, at least the intensity of one given wavelength can be processed and the evaluation unit is in working connection with the radiation sources in such a way that, depending on the selected program, the intensity of the radiation emitted from each radiation source can be adjusted

individually, and wavelengths with corresponding intensities, which arrive from the radiation detector to the evaluation unit can be selected (col. 2, lines 32-45, col. 14, lines 10-19).

As to Claims 3-6, 17-20, Soller teaches all as applied to Claims 1 and 2, and in addition the radiation sources 704 are selected from the group consisting of cold light sources and semiconductors, the radiation sources all emit equally in broadband or at least partly differently in a specified spectral region, at least two radiation sources emit in different or not completely overlapping spectral regions. (see col.17, lines 22-26), wherein the radiation sources include at least one radiation source for emitting red light, at least one radiation source for emitting blue light and at least one radiation source for emitting green light.

As to claims 7 and 21, Soller teaches all as applied to Claims 1 and 2, and in addition the radiation detector includes an optical multi-channel detector 1050 (fig. 14a).

As to Claims 11, 12, 25, 26, Soller teaches all as applied to Claims 1 and 2, and in addition in the evaluation unit programs are stored for determination of oxygen saturation and/or hemoglobin concentration in tissue; medical analysis; process analysis, and the sensor having housing separate from the radiation sources.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8-10, 13, 14, 22-24, 27-28 rejected under 35 U.S.C. 103(a) as being unpatentable over Soller et al (US 6,006,119) ("Soller"), as applied to Clams 1 and 2 above, and in view of Crothall (US 6,049,727)

Soller teaches all as applied to claim 1 and 2 above, with the exception of the evaluation unit a number of individual spectra can be deposited in a time sequence, and can be analyzed, at least two, individual spectra can be received at intervals in the range of microseconds to seconds, and the evaluation unit signals from the radiation detector can be resolved into a timewise constant and a timewise changeable, component for separate evaluation. Crothall teaches the above mentioned features (see col. 11, lines 50-67, col. 12 lines 1-24). It would be obvious to one of ordinary skill in the art at the time the invention was conceived to have an evaluation unit with a rapid sequence of individual spectra, in order to provide measurement of multiple parameters of the object with increased accuracy.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to L. G. Lauchman whose telephone number is (571) 272-2418. The examiner's normal work schedule is 8:00am to 4:30pm (EST), Monday through Friday. If attempts to reach examiner by the telephone are unsuccessful, the examiner's supervisor Gregory J. Toatley, Jr. can be reached on (571) 272-2059, ext. 77.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application should be directed to the TC receptionist whose telephone number is (571) 272-1562.

/L. G. Lauchman/  
Primary Examiner, Art Unit 2877